

FIGURE 1. RENILLA RENIFORMIS POLYNUCLEOTIDE
SEQUENCE (SEQ ID NO.1)

R. ren: 1 ATGGTGAGTAAACAAATATTGAAGAACTGGATTGCAGGAGATCATGTCGTTTAAAGTGAATC 64

R. ren: 65 TGGAAGGTGTAGTAAACAATCATGTGTTCAATGGAAGGTTGTGGAAAAGGAAATATTT 124

R. ren: 125 TATTCGGAAACCAACTGGTTCAGATTCGTGTCACAAAAGGGGCTCCGCTTCCATTTCAT 184

R. ren: 185 TTGATATTCTCTCACCAGCTTCCAATACGGCAACCGTACATTCACGAAATACCCGGAGG 244

R. ren: 245 ATATATCAGACTTTTTTATACAATCATTCCAGCGGGATTGTATACGAAAGAACGTTGC 304

R. ren: 305 GTTACGAAGATGGTGGACTGGTTGAAATCCGTTTCAGATATAAATTTAATCGAGGAGATGT 364

R. ren: 365 TTGTCTACAGAGTGGAATATAAAGGTAGTAACTTCCCGAATGATGGTCCAGTGATGAAGA 424

R. ren: 425 AGACAATCACAGGATTACAACCTTCGTTTGAAGTTGTGTATATGAACGATGGCGTCTTGG 484

R. ren: 485 TTGGCCAAGTCATTCTTGTTTATAGATTAACTCTGGCAAATTTTATTCGTGTCACATGA 544

R. ren: 545 GAACACTGATGAAATCAAAGGGTGTAGTGAAGGATTTTCCCGAATACCATTTCATTCAAC 604

R. ren: 605 ATCGTTTAGAGAAGACGTATGTGGAAGACGGAGGTTTTGTTGAGCAACACGAGACGGCCA 664

R. ren: 665 TTGCTCAACTGACATCGCTGGGGAAACCACTTGGATCCTTACACGAATGGGTTTAA 720

100218121001

FIGURE 2. RENILLA RENIFORMIS AMINO ACID SEQUENCE
(SEQ ID NO:2)

R. reni: 1 MSKQILKNTGLQEIMSFKNLEGVVNNHVFTMEGCGKGNILFGNQLVQIRVTKGAPLPFA 60

R. reni: 61 FDILSPAFQYGNRTFTKYPEDISDFFIQSFPAGFVYERTLRYEDGGLVEIRSDINLIEQM 120

R. reni: 121 FVYRVEYKGSNFPNDGPVMKKTITGLQPSFEVVYMNDGVLVGQVILVYRLNSGKFYSCHM 181

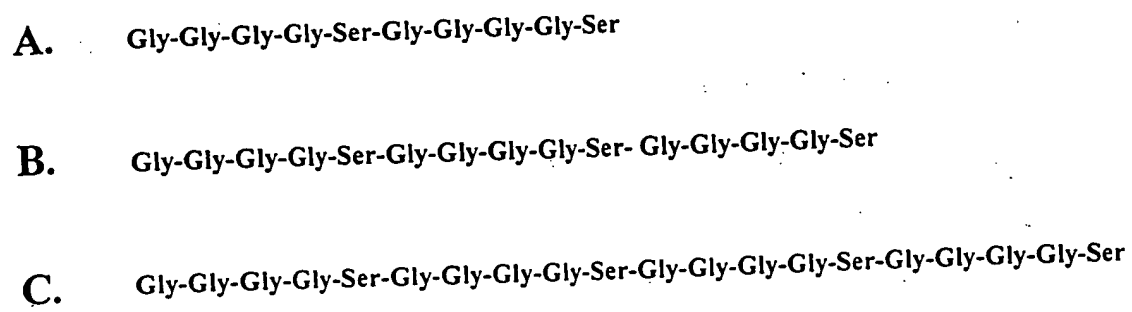
R. reni: 182 RTLMKSKGVVKDFPEYHFIQHRLEKTYVEDGGFVEQHETAIAQLTSLGKPLGSLHEWV 238

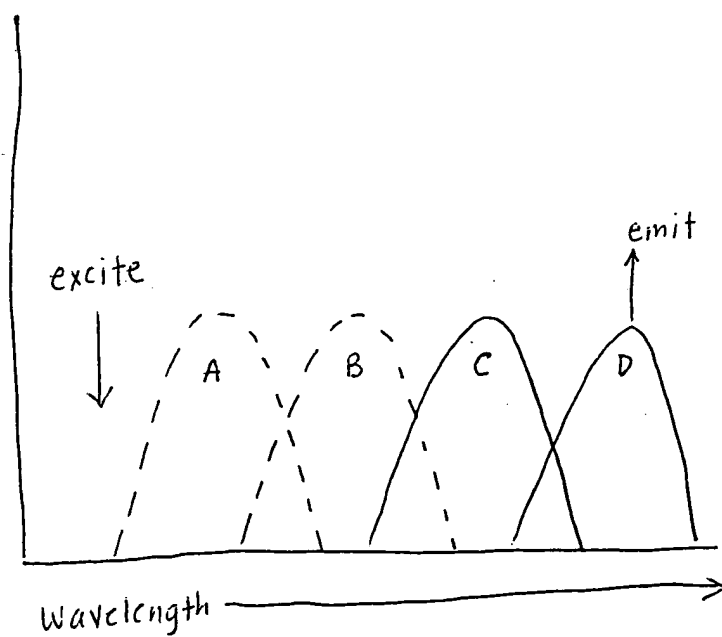
FOETAT" BTBT200T

FIGURE 3. POLYNUCLEOTIDE AND AMINO ACID SEQUENCES OF A
HUMANIZED *R. RENIFORMIS* GFP.
(SEQ ID NOs: 3 and 4, respectively)

1 ATGGTGAGCAAGCAGATCCTGAAGAACACCGGCCTGCAGGAGATCATGAGCTTCAAGGTG
M V S K Q I L K N T G L Q E I M S F K V
61 AACCTGGAGGGCGTGGTGAACAACCACGTGTTACCATGGAGGGCTGCGGCAAGGGCAAC
N L E G V V N N H V F T M E G C G K G N
121 ATCCTGTTCGGCAACCAGCTGGTGCAGATCCGCGTGACCAAGGGCGCCCCCTGCCCTTC
I L F G N Q L V Q I R V T K G A P L P F
181 GCCTTCGACATCCTGAGCCCCGCCTTCCAGTACGGCAACCGCACCTTCACCAAGTACCCC
A F D I L S P A F Q Y G N R T F T K Y P
241 GAGGACATCAGCGACTTCTTCATCCAGAGCTTCCCCGCCGGCTTCGTGTACGAGCGCACC
E D I S D F F I Q S F P A G F V Y E R T
301 CTGCGCTACGAGGACGGCGCCTGGTGGAGATCCGCAGCGACATCAACCTGATCGAGGAG
L R Y E D G G L V E I R S D I N L I E E
361 ATGTTCTGTACCGCGTGGAGTACAAGGGCCGCAACTTCCCCAACGACGGCCCCGTGATG
M F V Y R V E Y K G S N F P N D G P V M
421 AAGAAGACCATCACCGGCCTGCAGCCCAGCTTCGAGGTGGTGTACATGAACGACGGCGTG
K K T I T G L Q P S F E V V Y M N D G V
481 CTGGTGGGCCAGGTGATCCTGGTGTACCGCCTGAACAGCGGCAAGTTCTACAGCTGCCAC
L V G Q V I L V Y R L N S G K F Y S C H
544 ATGCGCACCTGATGAAGAGCAAGGGCGTGGTGAAGGACTTCCCCGAGTACCACTTCATC
M R T L M K S K G V V K D F P E Y H F I
604 CAGCACCGCCTGGAGAAGACCTACGTGGAGGACGGCGGCTTCGTGGAGCAGCACGAGACC
Q H R L E K T Y V E D G G F V E Q H E T
664 GCCATCGCCCAGCTGACCAGCCTGGGCAAGCCCCCTGGGCAGCCTGCACGAGTGGGTGTAA
A I A Q L T S L G K P L G S L H E W V -

1001 in 1001





- A = donor excitation peak
- B = donor emission
- C = acceptor excitation
- D = acceptor emission

FIGURE 5